

TROY OPERABLE UNIT

Libby Asbestos Superfund Site

Troy Town Meeting

April 29, 2008



1076827

Introductions

- DEQ Project Manager
Catherine LeCours
- Tetra Tech Project Manager
Ed Surbrugg
- Tetra Tech Field Team Leader
Mark Stockwell
- Information Center Manager
Michelle Carlson
- Tetra Tech Field Team

Why am I here?

- History of the Vermiculite Mine
- Short lesson in asbestos
- Overview the Libby Asbestos Superfund Site – Where does Troy fit in?
- What we accomplished last year
- What to expect during an inspection
- Answer questions

Zonolite Mine

- Vermiculite Mine operated 1920 to 1990
- Produced up to 80% of world's vermiculite
- WR Grace bought in 1963 and closed in 1991 (>> 5 million tons)
- Typically 150 to 200 employees at one time
- Over 1800 employees over life of operations

Worker Exposure to Asbestos

Reported up to 130 fibers per cubic centimeter (f/cc)

OSHA Permissible Exposure Level is 0.1 f/cc

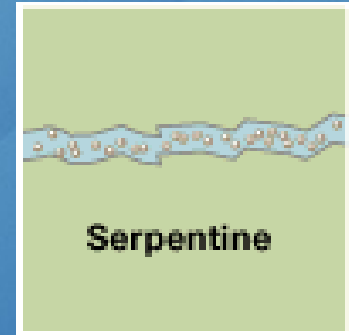


Mill reportedly emitted up to 5,000 lbs/day of asbestos into the atmosphere.

Two General Types of Asbestos

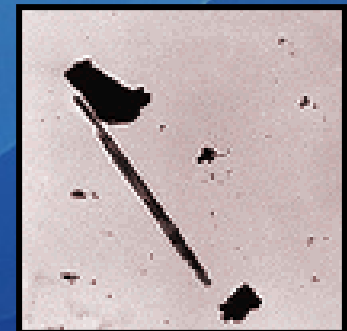
- Serpentine Asbestos (chrysotile)

- Most commonly used
- Snake-like structure



- Amphibole Asbestos (hundreds of fiber types)

- Few commercial uses
- Straight, spear-like structures



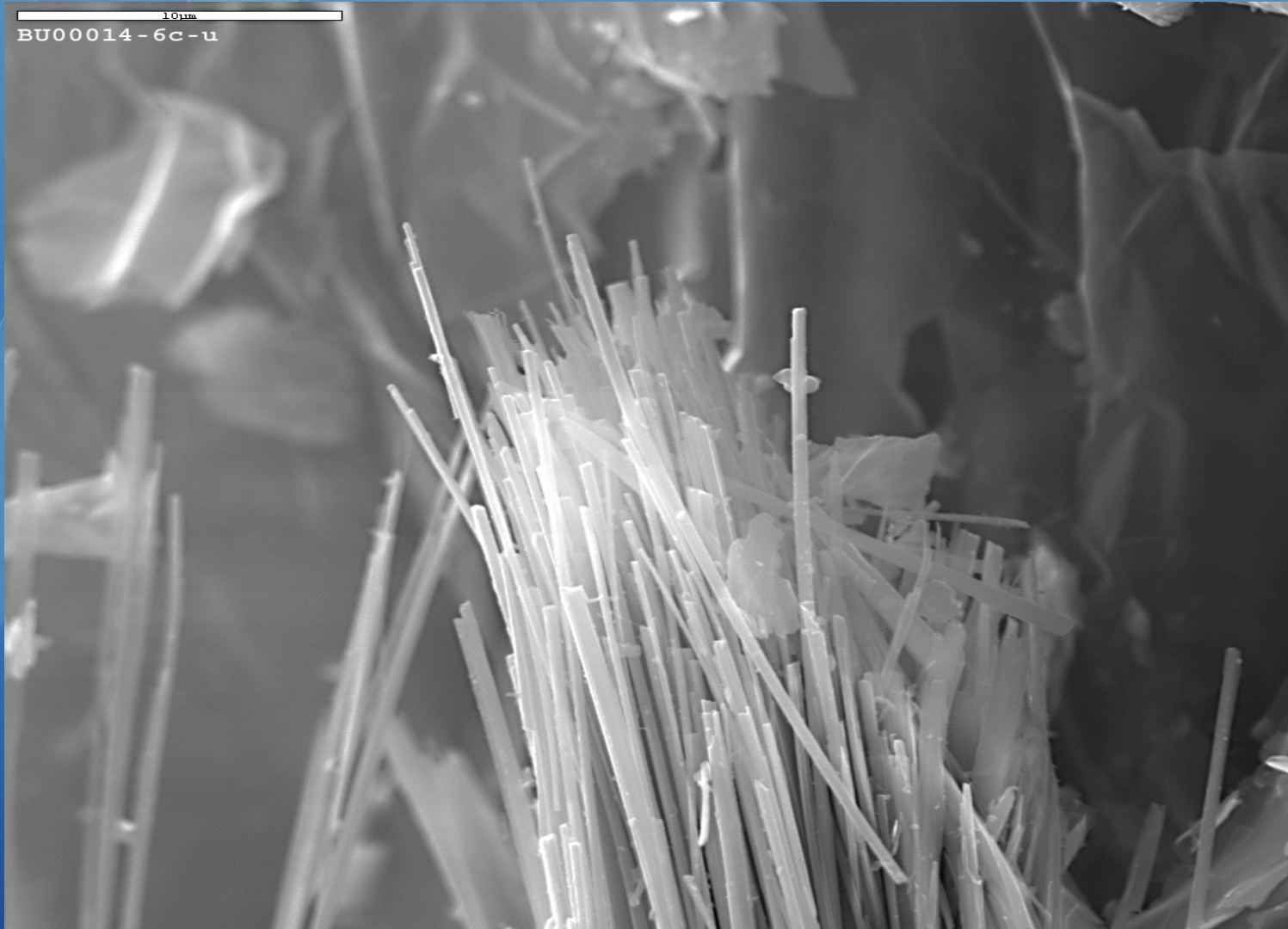
Vermiculite Ore



Libby Amphibole (LA)



Libby Amphibole (LA)



Vermiculite Had Many Uses

- ✓ insulation - “Zonolite”
- ✓ fertilizer/soil amendment
- ✓ lightweight construction aggregate
- ✓ packing material
- ✓ feed additive
- ✓ anti-slag
- ✓ absorbent



Potential Troy Non-Occupational Exposures Historical & Present

- Family Contact With Workers
- Ambient Air
- Other
 - Playing in vermiculite piles
 - School areas
 - Home insulation
 - Garden use
 - Driveways
 - Popping on stove



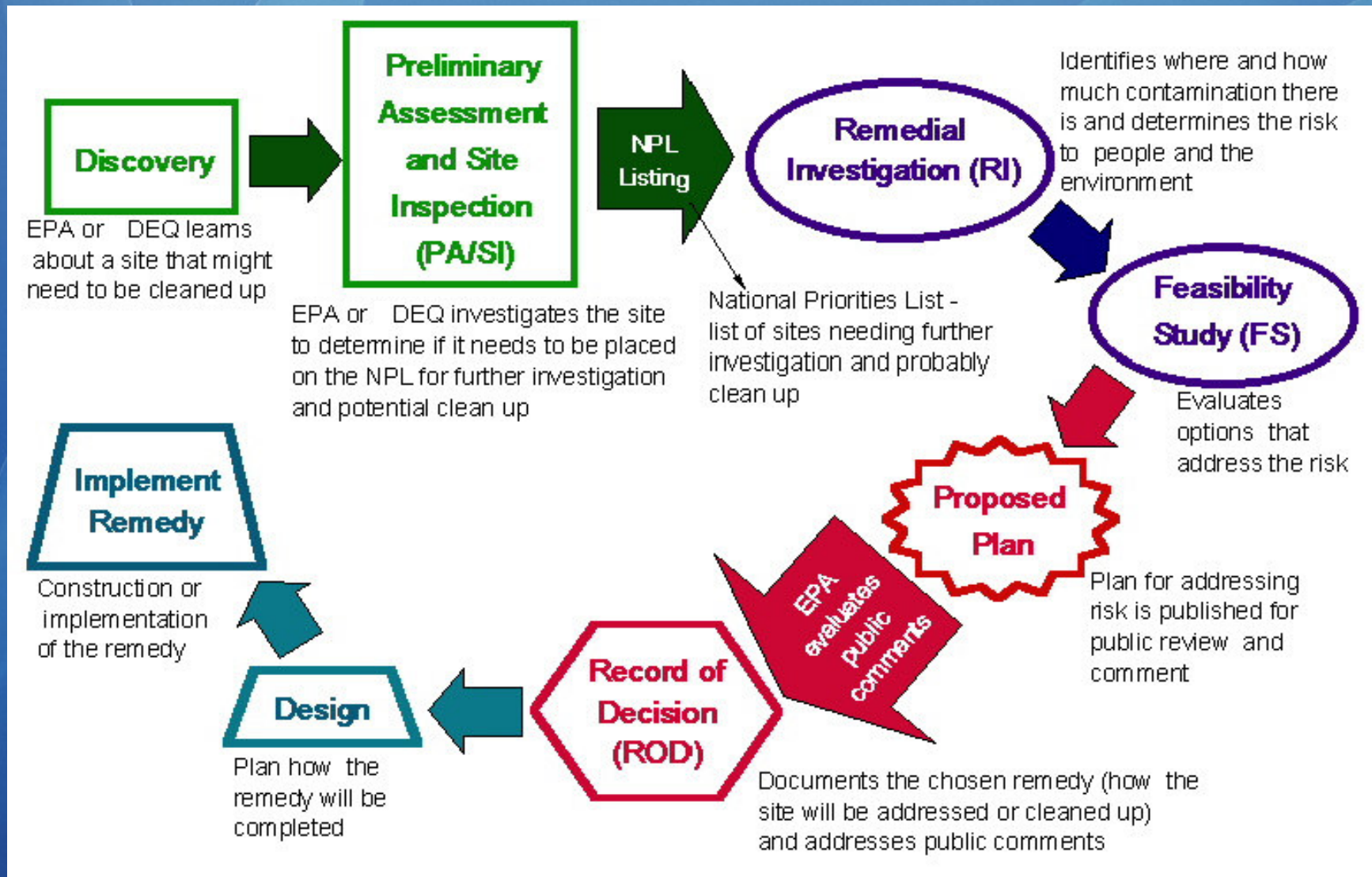
Asbestos Health Effects

- **Non-Cancer Fibrosis/Scarring** (latency >10 yrs)
 - Asbestosis – scarring of the air sacs
 - Pleural Fibrosis – scarring of lining around the lung
- **Cancer** (latency 20-40 yrs)
 - Lung Cancer
 - Increased risk of all lung cancer types, especially with smoking
 - Mesothelioma
 - Rapidly fatal cancer of the lining around the lungs & abdomen
 - Virtually all cases associated with asbestos exposure
 - Not affected by smoking
 - Other Cancers
 - Gastrointestinal & laryngeal

- ❖ 1999: Seattle PI broke the story of high death rate
- ❖ 3 days later Region 8 Emergency Response was in Libby
- ❖ Originally thought only workers were affected
- ❖ Launched response actions and health assessment immediately



Superfund Remedial Program Process



Operable Units

**Residential/ Commercial
District - Libby
(OU4)**

*Includes Highways 2 & 37
(Paul Peronard, EPA)*

Mine (OU3)

*Includes Rainey Creek Road,
Rainey Creek, and Kootenai
River*

(Bonnie Lavelle, EPA)

**Processing Areas
(OUs 1, 2, 5, 6)**

*Includes the BNSF rail line
(Kathryn Hernandez, EPA)*

**Residential/Commercial
District - Troy (OU7)**

*Includes Town of Troy and
surrounding area*

(Catherine LeCours, MDEQ)



EMERGENCY RESPONSE ACTIONS

Began in 2000

- ❖ **MINE ROAD AND DISPOSAL OPERATIONS**
- ❖ **SCREENING PLANT AND RAINTREE NURSERY**
- ❖ **EXPORT PLANT AND BALLFIELDS**
- ❖ **SCHOOLS AND SCHOOL TRACKS**
- ❖ **HIGHLY CONTAMINATED RESIDENCES**
- ❖ **ASBESTOS LANDFILL CELL CONSTRUCTION**

Residential/Commercial Investigation OU4 Libby

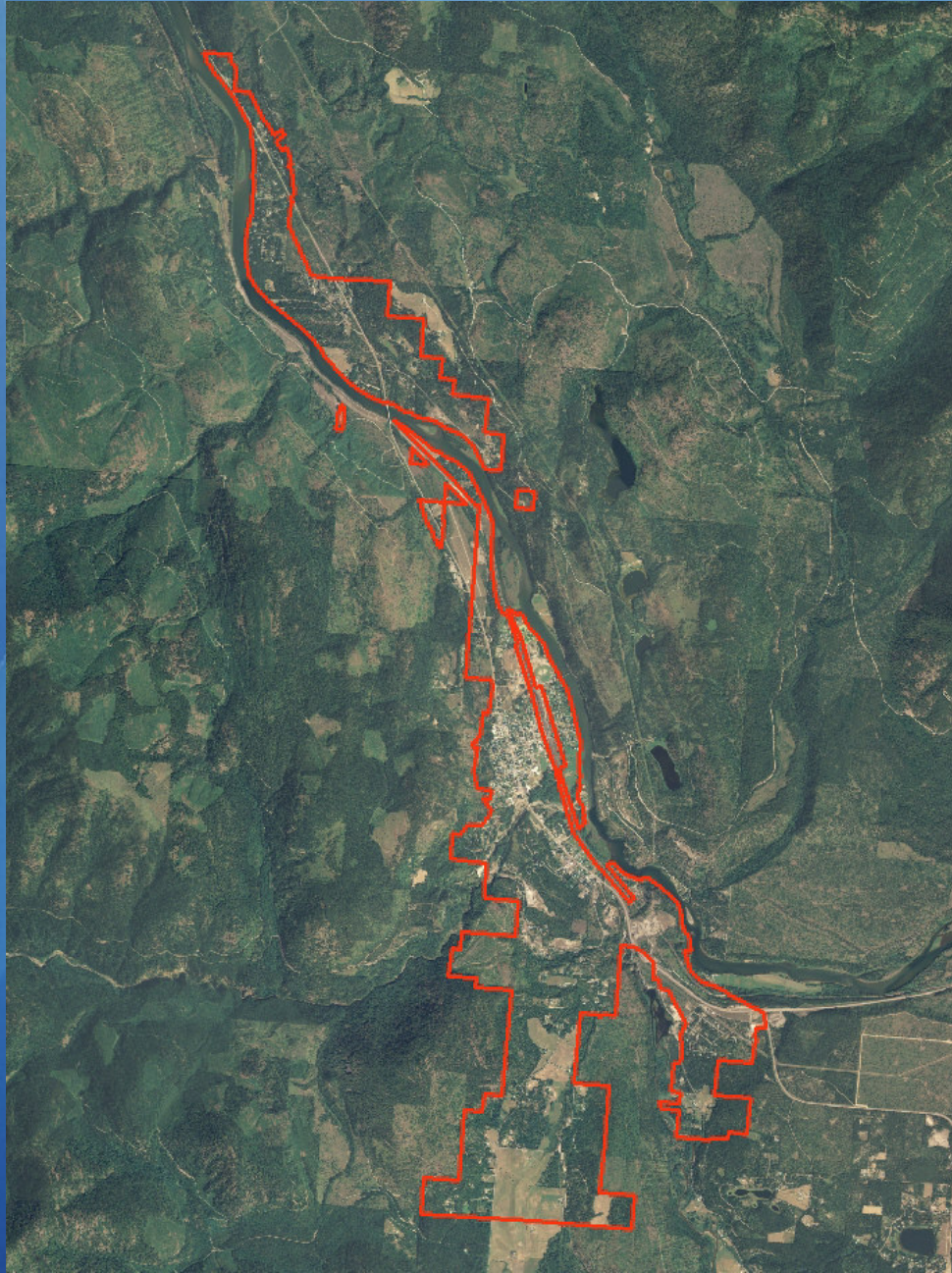
- “Air shed” of Libby approximately 5 mile radius
- Close to 4000 homes
- Began 2002
- Contaminant Screening Study (CSS)
- Nature and Extent of Vermiculite at Libby homes and businesses

Residential/Commercial Investigation OU7 Troy

- Population center and older homes in and around Troy
- Approximately 1200 properties
- Began 2007
- Troy Asbestos Property Evaluation (TAPE)
- Nature and Extent of Vermiculite at Troy homes and businesses
- Build on methods/procedures/lessons learned from Libby OU4

Residential/Commercial Investigation OU7 Troy

- Systematic approach to each parcel of land within Operable Unit boundary
 - Interview
 - Interior and Exterior Inspections
 - Dust and Soil Sampling
- Personal and Public Health and Safety
- Public Relations



Troy Study Area Boundary

Goals for Investigation

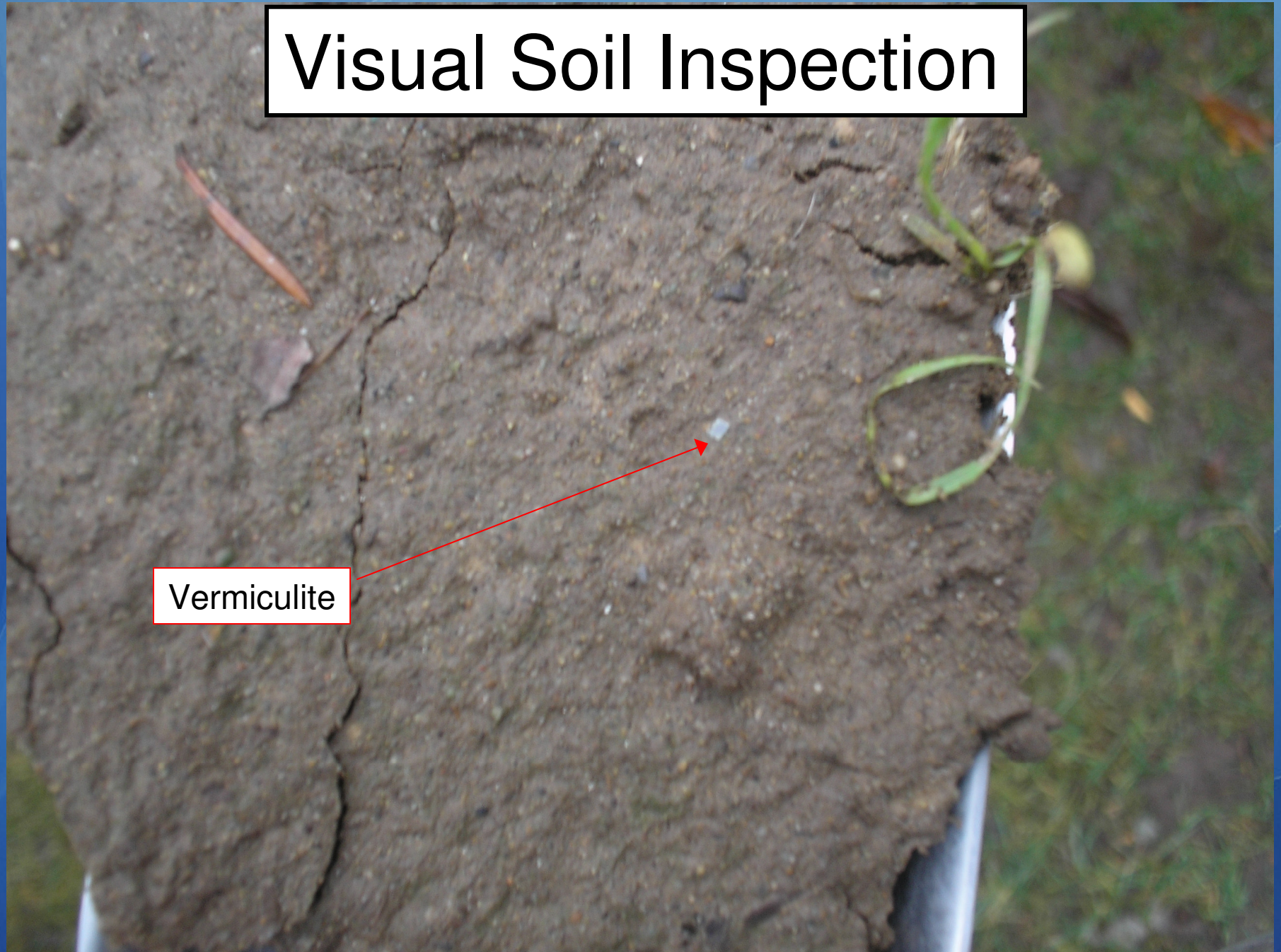
- Identify locations of vermiculite in and around Troy residences and businesses (visual inspection)
- Determine levels of asbestos present in and around Troy residences and businesses (sample collection)
- Educate residents to reduce exposure
- Begin to plan for cleanup

VISUAL INSPECTION OF VERMICULITE ATTIC INSULATION



Visual Soil Inspection

Vermiculite



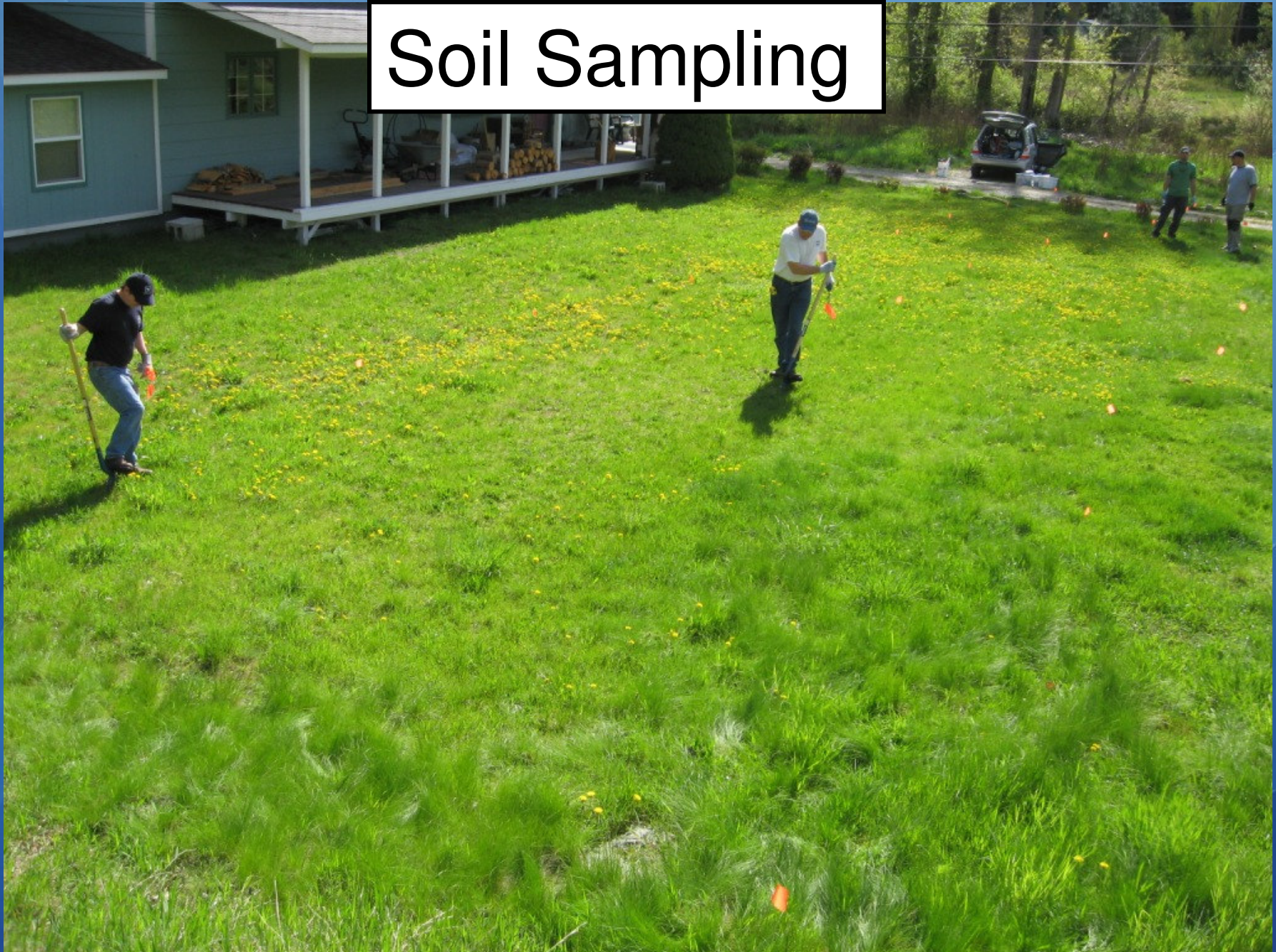


Dust Sample Collection

Interior Soil Sampling



Soil Sampling



Soil Sampling



2007 Statistics

- 1175 Study Boundary Parcels
- 1083 Access Agreements Mailed
- 627 Affirmative Access Agreements Received
- 12 Declined Access Agreements Received
- 535 Parcels Inspected
- 170 (32% of 535) Parcels meeting Removal Criteria
- 1616 Dust Samples Collected
- 2010 Soil Samples Collected
- 515 Other Samples Collected
- 9 Parcels Identified for Clean Up in 2008

2008 Statistics

- 1223 Study Boundary Parcels
- 572 Access Agreements Mailed

Inspection Schedule:

June 2 through August 15

None week of June 30

CALL MICHELLE TO SCHEDULE EARLY!

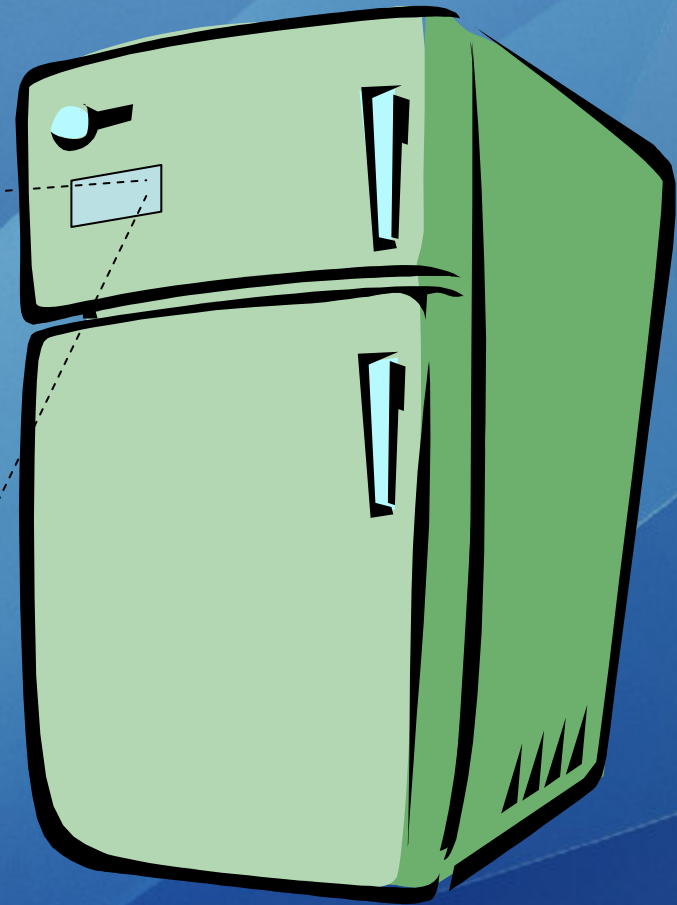
Emergencies/Remodeling

If you find vermiculite on your property, call the ERS for help in understanding and handling the situation.



**Libby Area Environmental
Resource Specialist (ERS)
406-291-5335**

During regular business hours or emergencies



How Can I Get Involved?

Monthly Public Meetings

- The week of the second Thursday – check newspapers

Technical Assistance Group (TAG)

- Tuesday
- 7:00 to 9:00 p.m.
- Flathead Valley Community College

Operations & Maintenance Workgroup (O&M)

- Wednesday
- 8:00 to 10:00 a.m.
- Venture Inn

Community Advisory Group (CAG)

- Thursday
- 7:00 to 9:00 p.m.
- Libby City Hall (Ponderosa Room)

DEQ Troy Information Center

303 N Third St

(across from Senior Center, next to Library)

Monday through Friday

8:00 a.m. to 4:30 p.m.

(406) 295-9238

info@deqtroyinfo.com

QUESTIONS?

